

Amendments to the Specification:

Page 1, before line 4, the paragraph beginning with "The present invention" insert the following titles and paragraph:

-- CROSS REFERENCE TO RELATED APPLICATIONS

This is a U.S. national stage of application No. PCT/EP2005/050595, filed on 10 February 2005. Priority is claimed on the following application(s): Country: Germany, Application No.: 10 2004 006 837.2, Filed: 12 February 2004; the content of which is incorporated here by reference.

BACKGROUND OF THE INVENTION --

Page 1, before line 24, the paragraph beginning with "It is therefore", insert the following title:

SUMMARY OF THE INVENTION

Please delete the paragraph beginning on page 1, line 28, in its entirety.

Please replace the paragraph beginning on page 2, line 1, with the following amended paragraph:

-- According to the present invention a method of converting heat energy from a fluid into mechanical energy by means of expansion of an evaporated working fluid in an expansion device connected to an evaporator is provided, wherein heat energy evaporates a working fluid

by means of heat exchange in an evaporator and/or heat energy is transformed to a higher temperature level by means of at least one or more series-connected heat pumps, in order to evaporate the working fluid in the evaporator by means of heat exchange, wherein the evaporated working fluid is an evaporated mixture of at least two components, and is expanded in a low-pressure expansion device, wherein the energy set free by the working fluid is partially converted to mechanical energy, and wherein at least one second evaporated component has its temperature increased downstream of the low-pressure expansion and energy is withdrawn from at least one first component of the working fluid so that the energy contained in the expanded, evaporated, temperature-increased second ~~component(s)~~ component of the working fluid is recyclable into the evaporator and usable for evaporating additional working fluid. --

Please replace the paragraph beginning on page 2, line 16, with the following amended paragraph:

-- Heat energy for evaporating a working fluid by means of heat exchange in an evaporator can be provided, for example, by at least one energy ~~source(s)~~ source which is ~~(are)~~ highly efficient. An energy ~~source(s)~~ source with high efficiency can be selected, for example, from the group comprising heat pumps, fuel cells and/or solar energy systems. --

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Please replace the paragraph beginning on page 2, line 23, with the following amended paragraph:

-- At least part of the necessary energy, preferably all of the energy, required for increasing the temperature of the second ~~component(s)~~ component downstream of the low-pressure expansion can be generated by the energy set free in an absorption and/or adsorption process. --

Please replace the paragraph beginning on page 3, line 20, with the following amended paragraph:

-- ~~An essential feature of the method according~~ According to the present invention, is the expansion of the working fluid in a low-pressure expansion device, wherein the energy contained in the expanded evaporated working fluid is recyclable into the evaporator and useable for evaporating additional working fluid. For this purpose the working fluid to be expanded is formed as a mixture and the method preferably comprises at least one first component of the working fluid which is absorbed by means of an absorption fluid in and/or downstream of the low-pressure expansion device and/or is adsorbed by means of an adsorption fluid, wherein heat energy is transferred to the remaining, evaporated second ~~component(s)~~ component, which is recyclable. --

Please replace the paragraph beginning on page 5, line 1, with the following amended paragraph:

-- The use of water is advantageous since the condensation heat of water, i.e. from gaseous to liquid, is particularly high. The heat energy set free hereby can be advantageously used for heating the second ~~component(s)~~ component. --

Please replace the paragraph beginning on page 5, line 14, with the following amended paragraph:

-- It could also be advantageous if the absorption fluid / adsorption fluid, after taking in a first ~~component(s)~~ component of the working fluid, could be easily separated from the second ~~component(s)~~ component of the working fluid. --

Please replace the paragraph beginning on page 5, line 17, with the following amended paragraph:

-- The absorption / adsorption fluid for taking in at least one first ~~component(s)~~ component of the working fluid can be advantageously selected such that the overall efficiency of the system according to the present invention for converting heat energy from fluids into mechanical energy with a starting fluid temperature of 25° C measured over 24 hours including the energy needed for separating the first ~~component(s)~~ component from the absorption fluid / adsorption fluid remains higher than 40%. --

Please delete the paragraph beginning on page 11, line 3, in its entirety.

Please replace the paragraph beginning on page 11, line 6, with the following amended paragraph:

-- ~~According to the~~ The object of the present invention is also met by a system for converting heat energy to mechanical energy is provided comprising the following components:

- a) an evaporation unit in which a working fluid formed as a mixture can be evaporated,
- b) a low-pressure expansion device,
- c) an absorption apparatus and/or an adsorption apparatus integrated with the low-pressure expansion device and/or downstream of the low-pressure expansion device,
- d) a separating apparatus which can be formed as a membrane system or a thermal generator in which the absorbed component is separated from the absorption fluid, and a pump for feeding the absorption fluid to the separating device and back to the absorption apparatus,
- e) at least one energy source in contact with the evaporating unit, by means of which heat energy can be generated which is taken up by a fluid stream in the evaporator to transform the fluid stream to a higher temperature level. --

Please replace the paragraph beginning on page 11, line 21, with the following amended paragraph:

-- The at least one energy ~~source(s)~~ source can be a heat ~~pump(s)~~ pump, a fuel ~~cell(s)~~ cell and/or a solar energy ~~system(s)~~ system. Preferably the use of at least one heat pump is contemplated due to its advantageous energy balance. Heat pumps can be advantageously used at low environmental temperatures. Solar energy systems require sufficiently high solar radiation so that in cooler regions it may be preferable to use heat pumps. Fuel cells can also be used due to their high efficiency. --

Page 20, before line 11, the paragraph beginning with "Further advantages", insert the following title:

BRIEF DESCRIPTION OF THE DRAWINGS

Page 20, before line 17, the paragraph beginning with "The present is based", insert the following title and paragraph:

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Please replace the paragraph beginning on page 21, line 30, with the following amended paragraph:

-- For driving compressor 4 of the heat pump in an advantageous embodiment an engine 15 could also be used which would be operated with Diesel or natural gas or with biogenous fuels, such as biogas, colza oil or biodiesel and the like. In this variant, an

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additional energy proportion can be used for evaporating unit 7 from the engine's waste heat or from the exhaust gases' waste heat of engine ~~[[16]]~~ 15 which is fed to the evaporator 7 by a conduit 16. With such an arrangement, on the one hand the efficiency of the overall process is further improved and on the other hand the startup of the system is facilitated. --

Please delete page 23 in its entirety.

Page 24, amend the title as follows:

-- ~~Claims~~ What is claimed is --

Page 29, replace the Abstract as shown on a separate page attached hereto.